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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	80.225	116.580	108.183	-	108.183	69.768	31.808	32.409	32.988	Continuing	Continuing
675345: B-2 Modernization	0.000	60.498	96.909	94.621	-	94.621	55.972	17.747	18.083	18.406	Continuing	Continuing
676021: BASELINE SUPPORT	0.000	19.727	19.671	13.562	-	13.562	13.796	14.061	14.326	14.582	Continuing	Continuing
Program MDAP/MAIS Code: 224												
Note In FY 2016 Project 675345, B-2 Modernization, includes new start effort for B-2 strategic communication.												
A. Mission Description and Budget Item Justification The B-2 Spirit is the world's most advanced long-range strike asset. The unique combination of range, precision, payload, and ability to penetrate and operate in anti-access/area denial environments allow the B-2 to identify, locate, target, and destroy the highest value enemy targets. The B-2 can, with necessary upgrades, accomplish its mission regardless of location, return to base safely, and permit freedom of movement for follow-on forces, including other long range strike platforms. An array of planned RDT&E projects are necessary to preserve a strategic advantage against 21st century threats as well as increase flexibility, lethality, and survivability of this national asset tasked across a broad spectrum of tactical and national strategic objectives. B-2 will achieve these objectives by adapting mature technologies/ systems in the fleet to rapidly deliver relevant combat capability, leveraging other Department of Defense investments and programs, utilizing innovative acquisition strategies. The B-2 has a projected service life through 2058. To ensure the fleet can accomplish its nuclear and conventional mission in highly defended and anti-access environments, periodic modernization efforts must be undertaken to upgrade combat capability as well as improve the viability, supportability, and survivability of the weapon system. Recent and ongoing investments in avionics, structures, communications, and weapons keep the B-2 viable in the immediate future. Current system upgrades include Low Observable Signature and Supportability Modifications, Defensive Management System Modernization, alternative communication solutions such as Common Very Low Frequency Receiver, Massive Ordnance Penetrator weapon integration and modernization of Global Positioning System hardware and signal enhancement, Flexible Strike Phase 1, Link-16 Center Instrument Display/In-Flight Replanner and Multifunctional Information Distribution System Low Volume Terminal modernization, Training System upgrades, Mission Planning System improvements, flight test aircraft upgrades and base of operations support, integration and testing of upgraded crypto components, and other weapons integration and engine improvements, as well as B-2 platform studies and acquisition planning. This program is in Budget Activity 7, Operational System Development. This budget activity includes developmental efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.												

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development		PE 0101127F I B-2 SQUADRONS			
B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	87.810	131.580	81.904	-	81.904
Current President's Budget	80.225	116.580	108.183	-	108.183
Total Adjustments	-7.585	-15.000	26.279	-	26.279
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-15.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-4.700	-			
• SBIR/STTR Transfer	-2.885	-			
• Other Adjustments	-	-	26.279	-	26.279
Change Summary Explanation					
FY14: -\$4.7M for higher Air Force priorities, -\$2.885M SBIR					
FY15: -\$15.0M Congressional reduction for Improving Funds Management: Forward Financing					
FY16: +\$10.926M for B-2 strategic communications, +\$15.720M for Common VLF Receiver Increment 1					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS				Project (Number/Name) 675345 / B-2 Modernization			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
675345: B-2 Modernization	-	60.498	96.909	94.621	-	94.621	55.972	17.747	18.083	18.406	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2016 Project 675345, B-2 Modernization, includes new start effort for B-2 strategic communication.

A. Mission Description and Budget Item Justification

The B-2 is currently undergoing modernization of avionics/communications systems, engines, armament systems, low observable components, core training system components, aircraft supportability improvements, support equipment development.

The Air Force will also study multiple structural, avionics, and engine modifications that could improve the performance of the aircraft and engines as well as reduce maintenance manhours and the logistics footprint of the fleet. Focus of the studies will be on non-mission capable (maintenance) drivers, safety issues, and obsolescence issues through modernization of key components in the airframe, avionics, and engines resulting in improved aircraft availability of a high demand/low density fleet.

Modern communications are key enablers for the B-2 in the anti-access/area denial battlespace, and directly enhance lethality and force multiplication. The Common Very Low Frequency (VLF) Receiver effort develops and integrates a receive-only, very low bandwidth VLF receiver and antenna subsystem to provide a secure, survivable strategic nuclear communication capability for the B-2. The receiver will be adaptable for use by other Department of Defense platforms. Secure, survivable, two-way communications in an anti-access/area denial environment remains a requirement for the B-2. The Air Force will assess B-2 strategic communications performance requirements for advanced extremely high frequency (AEHF) and other waveforms, conduct technology maturation, assess affordability impacts, and conduct other acquisition planning activities in anticipation of entering a near-term EMD phase. The Link 16 Multifunctional Information Distribution System block upgrade will provide enhanced security for Link 16 tactical networks and improve the reliability and maintainability of the system.

B-2 Armament upgrades integrate new and/or advanced weapons on the B-2 to attack a wider array of target sets, to include hardened, deeply buried targets, as well as destroy more targets per sortie. The B-2 is the only anti-access/area denial penetrating platform capable of carrying the Massive Ordnance Penetrator (MOP), a capability which meets Urgent Operational Need requirements. The MOP Quick Reaction Capability effort includes dual fuze control and single Smart Bomb Rack Controller per bay weapon control and monitor. The Flexible Strike Phase 1 program will rehost the current B-2 stores management software onto a new integrated processor; future efforts could update other software and hardware to enable simultaneous multiple weapons carriage capabilities, providing B-2 with maximum strategic nuclear and conventional strike flexibility. The B-2 Weapons System Tester and its associated Test Program Sets (TPS), to include but not limited to, the Common Organizational Level Tester (COLT), and B-2 Replacement Armament Tester, will be continually upgraded for increased reliability and performance to support current and new B-2 weapon suspension and release systems. B-2 will also integrate the Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER) weapon as well as other Expanded Strike weapons to further enhance the B-2's ability to attack and destroy high value target sets, making this platform the most versatile long range strategic bomber in the Air Force arsenal.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force		Date: February 2015		
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<p>Low Observable Signature and Supportability Modifications (LOSSM) directly address B-2 aircraft availability, the primary stated B-2 user requirement. Given the extremely small fleet size (20 aircraft), mission accomplishment is particularly sensitive to the availability of this high-demand strategic asset. LOSSM projects increase aircraft availability, decrease low observable (LO) maintenance, and maintain and improve the combat-ready LO signature for the B-2 fleet ensuring survivable combat operations. LOSSM projects improve materials, structures, and diagnostic tools necessary to evaluate LO materials and systems in the B-2 fleet. LOSSM structure improvement projects include, but are not limited to, advanced high frequency materials placement, windshield bounce patch and tape improvements, composite plies, advanced signature reduction, and radar radome and antennae improvements. Material improvements include, but are not limited to, tailpipe and inlet coatings, pre-cured gap fillers, and other advanced LO materials development. Diagnostic tool efforts include, but are not limited to, improved radar frequency diagnostics, Signature Diagnostic System database upgrades, Tier One Material Inspection System improvements, Portable Laser Removal Tool development, Next Generation Mapper, SCI-2K Radar, Mobile Diagnostics Laboratory, Ground Air Radar System development, and other low observable special test equipment and information systems upgrades.</p> <p>Peculiar support equipment development activities include design, development, test, and procurement of new peculiar support equipment, to include but not limited to, special test equipment for newly emerging test and support requirements of legacy B-2 capabilities and/or functionality. Development of new peculiar support equipment will support test and sustainment activities at the B-2 Weapon System Support Center Ground Test Facility, Program Depot Maintenance facility, Test Range facilities, and AFGSC operating locations.</p> <p>The B-2 Training System upgrades include updates to training device hardware and components, simulation software, courseware and academic materials, instructional system design architectures, engineering drawings, and system documentation that is not driven by a funded aircraft modification. Improvements include, but are not limited to, threat systems parametrics and order of battle information, radar display emulation improvements, improved aero fidelity of key pilot procedures, courseware improvements, and upgrades to display systems, subsystems, and simulation and computational processors. Other upgrades include, but are not limited to, conventional and nuclear guided weapons delivery training, expanded crypto keyfill capability in simulators, upgraded capability to train weapons as powered up upon completion of initial conditions, as well as upgrades to the electronic combat environment threat database tools to include threat laydown, threat parametrics, and Integrated Air Defense System. Upgrades also include the current Defensive Management System (DMS) simulation, improved DMS alternative/ emergency procedures courseware, and upgraded Mission Generation System, Suppressor tool, and simulation and computational processors as necessary. Enhancements are provided to the B-2 family of trainers to include the Weapon System Trainers, Mission Trainer, Cockpit Procedures Trainers, Computerized Maintenance Training System, Weapon System Training Aids, Weapons Load Trainer, Crew Escape System Maintenance Trainer, Flight Control System Trainer, instructor-operator station, and Training System Support Center.</p> <p>This program is in Budget Activity 7, Operational System Development. This budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.</p>				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
Title: B-2 Common Very Low Frequency Receiver (CVR)		13.035	45.460	42.070
Description: Provides secure, survivable, receive-only strategic nuclear communication for the B-2.				
FY 2014 Accomplishments:				

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Appropriation/Budget Activity 3600 / 7		R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS		Project (Number/Name) 675345 / B-2 Modernization			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014		FY 2015		FY 2016	
Continued Common VLF Receiver development effort, entered Engineering and Manufacturing Development phase. FY 2015 Plans: Continue Engineering and Manufacturing Development efforts and conduct Preliminary Design Review and System Critical Design Review. FY 2016 Plans: Continue Engineering and Manufacturing Development efforts, conduct Flight Test, and prepare for entry into Production.							
Title: B-2 Flex Strike Phase 1 Description: Rehost the currently separate Stores Management Operational Flight Programs onto the new integrated processor unit made available by the B-2 EHF Increment 1 program. FY 2014 Accomplishments: Concluded requirements maturation and risk reduction efforts, conducted Preliminary Design Review, conducted Milestone B, and entered the Engineering and Manufacturing Development phase. FY 2015 Plans: Continue Engineering and Manufacturing Development efforts and conduct Critical Design Review. FY 2016 Plans: Continue Engineering and Manufacturing Development efforts. Conduct software/hardware integration testing and flight test.		27.266		49.519		39.683	
Title: Low Observable Signature and Supportability Mods Description: B-2 Modernization includes, but is not limited to, Low Observable Signature and Supportability Modifications, Massive Ordnance Penetrator with accuracy improvements, Joint Air-to-Surface Standoff Missile- Extended Range and Expanded Strike weapons integration, armament tester improvements, Training System core upgrades, Link 16 Center Instrument Display/Inflight Replanner, Mode S/5 Identification Friend or Foe with Automatic Dependence Surveillance-Broadcast capability improvements, Moving Target Kill and Non-Traditional Surveillance and Reconnaissance capability improvements, information fusion upgrades, and Special Test Equipment development. FY 2014 Accomplishments: Continued development of on-going Low Observable Signature and Supportability Modifications, Training System core upgrades, Aircraft Supportability Modifications, and other weapons integration improvements including, LOSSM Signature Diagnostic System Spirals 10.5 and 11, LOSSM Radar Radomes, LOSSM Advance Signature Reduction Parts 1 and 3, as well as LOSSM Survivability Deficiency Trade Study FY 2015 Plans:		20.197		1.930		1.942	

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B. Accomplishments/Planned Programs (\$ in Millions)									FY 2014	FY 2015	FY 2016
Continue development of on-going Low Observable Signature and Supportability Modifications, Training System core upgrades, Aircraft Supportability Modifications, and other weapons integration improvements.											
FY 2016 Plans: Continue development of on-going Low Observable Signature and Supportability Modifications, Training System core upgrades, Aircraft Supportability Modifications, and other weapons integration improvements.											
Title: B-2 Strategic Communications									-	-	10.926
Description: Conduct acquisition planning, technology maturation, affordability assessments, and other pre-EMD activities associated with satisfying B-2 communications requirements using extremely high frequency (EHF) and other waveforms.											
FY 2016 Plans: Conduct acquisition planning, technology maturation, affordability assessments, and other pre-EMD activities associated with satisfying B-2 communications requirements using extremely high frequency (EHF) and other waveforms.											
Accomplishments/Planned Programs Subtotals									60.498	96.909	94.621
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APAF: BA05: Line Item #B00200: B-2 CVR Inc 1 Mod Funding	-	-	19.190	-	19.190	18.758	9.407	4.041	-	-	-
• APAF: BA05: Line Item # B00200: B-2 Training Support Modification, PE 0809731F	2.006	6.415	3.131	-	3.131	9.663	9.140	7.928	8.062	Continuing	Continuing
• APAF: BA07: Line Item #B00200: B-2 Post Production Support, B-2A ICS for CVR Inc 1: PE 0101127F	-	-	-	-	-	0.010	0.132	0.256	-	Continuing	Continuing
• APAF: BA06: Line Item #B00200: B-2 Squadrons, A/ C Initial Spares for CVR Inc 1	-	-	-	-	-	2.054	2.595	-	-	Continuing	Continuing
• APAF:BA07: Line Item #B00200: B-2 Depot Activation for CVR Inc 1, PE0101127F	-	-	2.196	-	2.196	0.768	0.512	-	-	Continuing	Continuing

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C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2016</u>	<u>FY 2016</u>	<u>FY 2016</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Complete</u>	<u>Total Cost</u>
Remarks											
D. Acquisition Strategy											
Key elements of the overall acquisition strategy include: use of sole source contract with a prime/integrating contractor (Northrop Grumman), employ the program office as the system integrator when practical, leverage mature technology and systems development investments by other Department of Defense organizations, encourage prime contractor competition of subsystems and key components to reduce risk and cost, use of cost plus incentive fee (CPIF) development contracts, and combine developmental upgrades with software sustainment blocks to minimize the number of software releases, aircraft downtime, and differences in fielded configurations.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS	Project (Number/Name) 675345 / B-2 Modernization
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Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
B-2 Flex Strike Phase 1	Various	Various : Various,	0.000	21.923	Jan 2014	45.032	Dec 2014	29.504	Nov 2015	-		29.504	Continuing	Continuing	-
B-2 Common Very Low Frequency Receiver (CVR)	Various	Various : Various,	0.000	11.475	Jan 2014	34.883	Oct 2014	38.136	Oct 2015	-		38.136	Continuing	Continuing	-
Low Observable Signature and Supportability Mods	Various	Various : Various,	0.000	19.912	Dec 2014	1.676	Feb 2015	1.707	Feb 2016	-		1.707	Continuing	Continuing	-
B-2 Advanced Extremely High Frequency Communications	Various	Various : Various,	0.000	-		-		10.605	Jan 2016	-		10.605	Continuing	Continuing	-
Aircrew Training	Various	Various : Various,	0.000	2.160	Dec 2013	5.378	Dec 2014	3.142	Dec 2015	-		3.142	Continuing	Continuing	-
Mission Planning	Various	Various : Various,	0.000	2.860	Jan 2014	1.238	Jan 2015	0.509	Jan 2016	-		0.509	Continuing	Continuing	-
Subtotal			0.000	58.330		88.207		83.603		-		83.603	-	-	-

Remarks

Northrop-Grumman is the prime contractor and serves as integrator and hence main contractor for many (ie "Various"), but not all, B-2 modernization efforts.

LOSSM received excess FY14 funds from Flexible Strike Phase 1 that could not be earned in FY14/15. Redirection of FY14 excess funds to LOSSM funded several previously unfunded requirements while correcting a funding phasing problem within Flexible Strike.

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Test	PO	AFFTC ; ,	0.000	0.110	Nov 2013	4.500	Nov 2014	8.044	Nov 2015	-		8.044	Continuing	Continuing	-
Subtotal			0.000	0.110		4.500		8.044		-		8.044	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS						Project (Number/Name) 675345 / B-2 Modernization			
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA	Various	Various : ,	0.000	2.058	Oct 2013	4.202	Oct 2014	2.974	Oct 2015	-		2.974	Continuing	Continuing	TBD
Subtotal			0.000	2.058		4.202		2.974		-		2.974	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	60.498		96.909		94.621		-		94.621	-	-	-
Remarks															
Award dates listed are the first incremental funding opportunity associated with each cost category.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force

Date: February 2015

Appropriation/Budget Activity

3600 / 7

R-1 Program Element (Number/Name)

PE 0101127F / B-2 SQUADRONS

Project (Number/Name)

675345 / B-2 Modernization

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MOP QRC Installations Complete																												
Flexible Strike Ph 1 Preliminary Design Review																												
Flexible Strike Ph 1 Milestone B																												
Flexible Strike Ph 1 EMD Contract Award																												
Flexible Strike EMD																												
Flexible Strike Ph 1 Critical Design Review																												
Flexible Strike Ph 1 Milestone C																												
Flexible Strike Ph 1 Production Contract Award																												
Flexible Strike Production																												
Flexible Strike Ph 1 Required Assets Available																												
Common Very Low Frequency Receiver EMD Contract Award																												
Common Very Low Frequency Receiver Preliminary Design Review																												
Common Very Low Frequency Critical Design Review																												
Common Very Low Frequency EMD																												
Common Very Low Frequency Milestone C																												
Common Very Low Frequency Production Contract Award																												
Common Very Low Frequency Required Assets Available																												
Common Very Low Frequency Production																												
Advanced Extremely High Frequency Communications Acq Planning Award																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS	Project (Number/Name) 675345 / B-2 Modernization	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MOP QRC Installations Complete	2	2014	2	2014
Flexible Strike Ph 1 Preliminary Design Review	2	2014	2	2014
Flexible Strike Ph 1 Milestone B	3	2014	3	2014
Flexible Strike Ph 1 EMD Contract Award	4	2014	4	2014
Flexible Strike EMD	4	2014	2	2017
Flexible Strike Ph 1 Critical Design Review	2	2015	2	2015
Flexible Strike Ph 1 Milestone C	2	2017	2	2017
Flexible Strike Ph 1 Production Contract Award	2	2017	2	2017
Flexible Strike Production	2	2017	3	2018
Flexible Strike Ph 1 Required Assets Available	1	2018	1	2018
Common Very Low Frequency Receiver EMD Contract Award	1	2014	1	2014
Common Very Low Frequency Receiver Preliminary Design Review	1	2015	1	2015
Common Very Low Frequency Critical Design Review	3	2015	3	2015
Common Very Low Frequency EMD	1	2014	3	2017
Common Very Low Frequency Milestone C	4	2016	4	2016
Common Very Low Frequency Production Contract Award	4	2016	4	2016
Common Very Low Frequency Required Assets Available	1	2018	1	2018
Common Very Low Frequency Production	4	2016	2	2019
Advanced Extremely High Frequency Communications Acq Planning Award	3	2016	3	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS				Project (Number/Name) 676021 / BASELINE SUPPORT			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
676021: BASELINE SUPPORT	-	19.727	19.671	13.562	-	13.562	13.796	14.061	14.326	14.582	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Baseline Support maintains and upgrades the B-2 unique flight test aircraft as well as hardware/software and test equipment to support developmental systems integration, and flight test, reducing the need for additional operational aircraft and accelerating deployment of advanced operational capabilities to the warfighter. Baseline Support also ensures the Mission Planning System keeps pace with aircraft modifications and improves the mission planning core system. Baseline Support provides for other B-2 unique government costs and includes assorted studies of aircraft performance and cost trades as well as acquisition planning activities, up to and including proposal preparation, for future aircraft, engine, weapon, communication, navigation or other capabilities. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016
Title: Baseline Support Acq Plan/Studies/Integr Tst Spt	7.271	4.238	0.395
Description: Baseline Support provides for other B-2 unique government costs, including acquisition planning activities for future capabilities, long range planning, studies, and program integration activities, as well as integration and test support of upgraded crypto components as needed.			
FY 2014 Accomplishments: Continued Baseline Support activities including acquisition planning for future capabilities, long range planning, studies, and program integration activities, as well as integration and test support of upgraded crypto components.			
FY 2015 Plans: Continue Baseline Support activities including acquisition planning for future capabilities, long range planning, studies, program integration activities, integration and test support of upgraded crypto components, and refine requirements and study affordable options to satisfy B-2 communications requirements in an anti-access/area denial environment.			
FY 2016 Plans: Continue Baseline Support activities including acquisition planning for future capabilities, long range planning, studies, program integration activities, integration and test support of upgraded crypto components, and refine requirements and study affordable options to satisfy B-2 communications requirements in an anti-access/area denial environment.			
Title: Baseline Support Flight Test	9.957	13.176	10.155

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS	Project (Number/Name) 676021 / BASELINE SUPPORT	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
<p>Description: Description: Baseline Support Flight Test maintains and upgrades the B-2 unique flight test aircraft as well as hardware/software and test equipment to support developmental systems integration and flight test, reducing the need for additional operational aircraft and accelerating deployment of advanced operational capabilities to the warfighter.</p> <p>FY 2014 Accomplishments: Continued B-2 Flight Test activities, maintaining and upgrading the B-2 unique flight test aircraft as well as hardware/software and test equipment, to support developmental systems integration and flight test.</p> <p>FY 2015 Plans: Continue B-2 Flight Test activities, maintaining and upgrading the B-2 unique flight test aircraft as well as hardware/software and test equipment, to support developmental systems integration and flight test.</p> <p>FY 2016 Plans: Continue B-2 Flight Test activities, maintaining and upgrading the B-2 unique flight test aircraft as well as hardware/software and test equipment, to support developmental systems integration and flight test.</p>			
<p>Title: Baseline Support Mission Planning</p> <p>Description: Description: Baseline Support Mission Planning System improvements ensure the mission planning system keeps pace with aircraft modifications and improves mission planning core systems.</p> <p>FY 2014 Accomplishments: Continued B-2 Mission Planning activities, keeping pace with aircraft mods and improving mission planning core systems, to include continuation of the transition from the current AFMSS mission planning to the Joint Mission Planning System (JMPS).</p> <p>FY 2015 Plans: Continue B-2 Mission Planning activities, keeping pace with aircraft modifications and improving mission planning core systems, to include continuation of the transition from the current AFMSS mission planning to the Joint Mission Planning System (JMPS).</p> <p>FY 2016 Plans: Continue B-2 Mission Planning activities, keeping pace with aircraft modifications and improving mission planning core systems, to include continuation of the transition from the current AFMSS mission planning to the Joint Mission Planning System (JMPS).</p>		2.499	2.257
Accomplishments/Planned Programs Subtotals		19.727	13.562
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force		Date: February 2015
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS	Project (Number/Name) 676021 / BASELINE SUPPORT
D. Acquisition Strategy Key elements of the overall acquisition strategy include: use of a sole source contract with a prime/integrating contractor (Northrop Grumman) for most but not all B-2 programs; use of cost plus incentive fee (CPIF) development contracts; and the combination of developmental upgrades with software sustainment blocks to minimize the number of software releases, aircraft downtime, and differences in fielded configurations.		
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS				Project (Number/Name) 676021 / BASELINE SUPPORT					

Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Mission Planning	Various	Various : Various,	0.000	2.414	Jan 2014	2.039	Jan 2015	2.600	Jan 2016	-		2.600	Continuing	Continuing	TBD
Subtotal			0.000	2.414		2.039		2.600		-		2.600	-	-	-

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Government Costs	Various	Various : Various,	0.000	13.912	Oct 2013	13.372	Oct 2014	8.006	Oct 2015	-		8.006	Continuing	Continuing	TBD
Subtotal			0.000	13.912		13.372		8.006		-		8.006	-	-	-

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Test	PO	AFBTC ; ,	0.000	3.260	Oct 2013	3.587	Oct 2014	2.559	Oct 2015	-		2.559	Continuing	Continuing	TBD
Subtotal			0.000	3.260		3.587		2.559		-		2.559	-	-	-

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA	Various	Various : ,	0.000	0.141	Oct 2013	0.673	Oct 2014	0.397	Oct 2015	-		0.397	Continuing	Continuing	TBD
Subtotal			0.000	0.141		0.673		0.397		-		0.397	-	-	-

			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	19.727	19.671	13.562	-	13.562	-	-	-

Remarks											
Award dates listed are the first incremental funding opportunity associated with each cost category.											

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force																Date: February 2015			
Appropriation/Budget Activity 3600 / 7								R-1 Program Element (Number/Name) PE 0101127F / B-2 SQUADRONS								Project (Number/Name) 676021 / BASELINE SUPPORT			

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Mission Planning Release 4.4 (JMPS)																												
FY14 Flight Test Core Support Contract Award																												
FY15 Flight Test Core Support Contract Award																												
FY16 Flight Test Core Support Contract Award																												
FY17 Flight Test Core Support Contract Award																												
FY18 Flight Test Core Support Contract Award																												
FY19 Flight Test Core Support Contract Award																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101127F / <i>B-2 SQUADRONS</i>	Project (Number/Name) 676021 / <i>BASELINE SUPPORT</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Mission Planning Release 4.4 (JMPS)	4	2016	4	2016
FY14 Flight Test Core Support Contract Award	1	2014	1	2014
FY15 Flight Test Core Support Contract Award	1	2015	1	2015
FY16 Flight Test Core Support Contract Award	1	2016	1	2016
FY17 Flight Test Core Support Contract Award	1	2017	1	2017
FY18 Flight Test Core Support Contract Award	1	2018	1	2018
FY19 Flight Test Core Support Contract Award	1	2019	1	2019